



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,385	09/24/2003	Margaret Browning	L3-007	3935
7590	07/06/2004		EXAMINER	
Mr. Frank Doran L3 Communications Aviation Recorders 6000 Fruitville Road Sarasota, FL 34232			OLIVA, CARMELO B	
			ART UNIT	PAPER NUMBER
			2831	

DATE MAILED: 07/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/669,385

Applicant(s)

BROWNING ET AL.

Examiner

Carmelo Oliva

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10-13, 19-21, 27-29 and 35 is/are rejected.
- 7) ☒ Claim(s) 8, 9, 14-18, 22-26 and 30-34 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/31/03</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1,10 and 11 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,706,966. Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitation of "circuit components mounted entirely within said

Art Unit: 2831

mounting base" in the current application is analogous to "a mounting base ... containing electronics" in the 6,706,966 patent.

4. Claims 5,12 and 13 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,706,966 in view of Purdom (US 5,750,925).

Regarding claims 5 and 12, Purdom teaches a mounting base subsystem 102 including at least one watertight cable connector 113. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a watertight connector as taught by Purdom in order to exchange data and power signals while protecting the components within the subsystem from moisture damage.

Regarding claim 13, said mounting base subsystem includes watertight connectors 113 coupling inherently to an external power supply and to an external data source, in order for proper function of the internal memory device 109 and other internal electronic devices.

5. Claims 2-4 and 7 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,706,966 in view of Wright (US 6,167,238).

Regarding claim 2, Wright teaches a voyage data recorder which is connected to an ETHERNET network (col. 26, lines 7-36). It would have been obvious to one having ordinary skill in the art at the time the invention was made to connect the electronic circuits to an ETHERNET network as taught by Wright in order to allow computer communications across Internet networking (col. 26, lines 11 and 12).

Regarding claim 3, Wright teaches firmware which provides TCP/IP access over ETHERNET to said circuits (col. 26, lines 11-12).

Regarding claim 4, Wright teaches including web pages for configuring said hardened voyage data recorder (col. 26, lines 37-50).

Regarding claim 7, it would have been obvious to one having ordinary skill in the art at the time the invention was made for said electronic circuits to accept both 110/220 VAC and 24 VDC power supplies since these are both well known standards for power input.

6. Claim 6 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,706,966 in view of Purdom (US 5,750,925), and Wright (US 6,167,238).

Purdom teaches a mounting base subsystem 102 including at least one watertight cable connector 113. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a watertight connector as taught by Purdom in order to exchange data and power signals while protecting the components within the subsystem from moisture damage. Further, Wright teaches a voyage data recorder which is connected to an ETHERNET network (col. 26, lines 7-36). It would have been obvious to one having ordinary skill in the art at the time the invention was made to connect the electronic circuits to an ETHERNET network as taught by Wright in order to allow computer communications across Internet networking (col. 26, lines 11 and 12).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claim 35 is rejected under 35 U.S.C. 102(b) as being anticipated by Purdom (US 5,5750,925).

Regarding claim 35, Purdom discloses a hardened voyage data recorder comprising:

a removable memory subsystem 102;

a mounting base subsystem 101 coupled to the removable memory subsystem;

and

a release mechanism (bolts in Fig. 1A) for uncoupling said memory subsystem from said mounting subsystem. The term "quick" is a relative term and therefore does not hold any patentable weight.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2831

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Purdom (US 5,750,925) in view of Lemke et al. (US 5,317,463).

Regarding claim 19, Purdom discloses a hardened voyage data recorder, comprising:

(a) a removable memory subsystem 102;

(b) a mounting base subsystem 101 removably coupled to said memory subsystem;

However, Purdom does not disclose at least one serial/parallel memory interface converter chip coupled to said removable memory subsystem. Lemke et al teaches a voyage data recorder having a serial/parallel memory converter chip (converter, col. 15, lines 8-30, which is serial/parallel, see col. 15, lines 32-35). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have an analog to digital converter chip as taught by Lemke et al. in order for the incoming data to be converted to the correct format for storage within the memory subsystem.

Regarding claim 20, said mounting base subsystem of Purdom includes at least one watertight cable connector 113.

Regarding claim 21, said mounting base system of Purdom includes watertight connectors 113 coupling inherently to an external power supply and to an external data source, in order for proper function of the internal memory device 109 and other internal electronic devices.

12. Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Purdom (US 5,750,925) in view of Lemke et al. (US 5,317,463) and Purdom et al. (US 5,841,631).

Regarding claim 27, Purdom '925 discloses a hardened voyage data recorder, comprising:

- (a) a removable memory subsystem 102;
- (b) a mounting base subsystem 101 removably coupled to said memory subsystem.

However, Purdom does not disclose serial/parallel memory interface converter chips coupled to said removable memory subsystem. Lemke et al teaches a voyage data recorder having a serial/parallel memory converter chip (converter, col. 15, lines 8-30, which is serial/parallel, see col. 15, lines 32-35). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have an analog to digital converter chip as taught by Lemke et al. in order for the incoming data to be converted to the correct format for storage within the memory subsystem.

Also, said removable memory subsystem of Purdom does not include a stacked memory. Purdom et al. '638 teaches stacked memory. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a stack of memory chips as taught by Purdom et al. '638, in order to reduce memory volume required for housing a data recording device (col. 1, lines 9-11).

Regarding claim 28, said mounting base subsystem of Purdom '925 includes at least one watertight cable connector 113.

Regarding claim 29, said mounting base subsystem of Purdom '925 includes watertight connectors 113 coupling inherently to an external power supply and to an external data source, in order for proper function of the internal memory device 109 and other internal electronic devices.

Response to Arguments

13. Applicant's arguments filed September 24, 2003 have been fully considered but they are not persuasive.

In response to applicant's argument that the memory converter chips are not "serial/parallel" converters, Lemke et al. does state in col. 15, lines 32-35 that the converter chips convert the data to a serial bit stream in order to record to memory.

Allowable Subject Matter

14. Claims 8,9,14-18,22-26 and 30-34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. The following is a statement of reasons for the indication of allowable subject matter:

Claims 8,9 and 14-18 are allowable because the prior art alone or in combination does not teach or fairly suggest a hardened voyage data recorder having a removable memory subsystem and a mounting base subsystem each having flanges, whereby a quick release clamp engages the flanges and the base subsystem is removably coupled to the memory subsystem, in combination with the other claimed features.

Claims 8,9,14-18,22-26 and 30-34 are allowable because the prior art alone or in combination does not teach or fairly suggest a hardened voyage data recorder having a removable memory subsystem and a mounting base subsystem each having flanges, whereby a quick release clamp engages the flanges and the base subsystem is removably coupled to the memory subsystem, taken in combination with the other claimed features.


Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Olzak et al. (US 6,153,720) and Fairbanks (US 5,708,565) both show voyage data recorders.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carmelo Oliva whose telephone number is (703)305-0835. The examiner can normally be reached flexible hours on Monday through Friday with every other Wednesday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard, can be reached on (703)308-3682. The fax phone number for this Group is (703) 305-3431 for regular communications, and (703) 305-1341 for after final communications.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.


CHAU N. NGUYEN
PRIMARY EXAMINER